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ROBERT E MALM  
16624 PEQUENO PLACE  
PACIFIC PALISADES, CA 90272

EXAMINER
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NGUYEN, LUONG TRUNG

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* GREGORY E. JOHNSTON and ARIE LEVINKRON

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Appeal 2007-2749  
Application 09/059,077  
Technology Center 2600

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Decided: November 13, 2008

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Before JOSEPH F. RUGGIERO, ROBERT E. NAPPI, and KEVIN F.  
TURNER, *Administrative Patent Judges*.

RUGGIERO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-3, 5-7, 12-14, 18-21, and 23-25. Claims 4, 8-11, 15-17, and 22 have been indicated by the Examiner to be allowable subject to being rewritten in independent form. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' invention relates to a surveillance camera system including a process and apparatus for capturing images. (Spec. 1)

Claim 1 is illustrative of the invention and reads as follows:

1. A mobile pan and tilt camera and display-control apparatus comprising:

a fully rotatable camera attached to a mount assembly that is mounted to a vehicle for capturing mobile images;

a display-control box having an image display screen and control buttons for controlling said camera and its movement, said display-control box being attached to an adjustable mount in said vehicle within an operator's view and reach;

an image capture box for receiving said captured mobile images.

The Examiner relies on the following prior art references to show unpatentability:

Tovi	US 4,225,881	Sep. 30, 1980
Ohara	US 5,008,605	Apr. 16, 1991
Sergeant	US 5,107,286	Apr. 21, 1992
Boehle	US 5,212,655	May 18, 1993
O'Farrill	US 5,528,328	Jun. 18, 1996
Klapper	US 5,729,016	Mar. 17, 1998
Maruyama	JP 8-116476	May 7, 1996
Chino <sup>1</sup>	JP 8-160874	Jun. 21, 1996
Kujirada	JP 10-304339	Nov. 13, 1998

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<sup>1</sup> We refer to this reference as "Chino" which is the spelling used in the Examiner's Answer as well as in the English translation of JP 8-116476.

Claims 7 and 21 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

Claims 1-3, 5, 6, 14, 18, 19, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Klapper in view of Maruyama and Chino.

Claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Klapper in view of Maruyama, Chino, Sergeant, and O’Farrill.

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Klapper in view of Maruyama, Chino, and Ohara.

Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Klapper in view of Maruyama, Chino, and Tovi.

Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Klapper in view of Maruyama, Chino, and Boehle.

Claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Klapper in view of Maruyama, Chino, and Kujirada.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Reply Brief and Answer for the respective details.<sup>2</sup> Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not

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<sup>2</sup> In the Examiner’s Answer mailed December 8, 2006, the Examiner set forth new grounds of rejection with respect to all of the pending claims. In response, Appellants filed a Reply Brief on February 2, 2007. In this decision, we make reference to this Examiner’s Answer and Reply Brief which together reflect the latest position of both Appellants and the Examiner.

to make in the Reply Brief have not been considered and are deemed to be waived [see 37 C.F.R. § 41.37(c)(1)(vii)].

## ISSUES

(i) Under 35 U.S.C § 112, second paragraph, with respect to appealed claims 7 and 21, would the skilled artisan, upon reading the claims in light of the Specification, be able to ascertain the scope of the invention recited in the claims.

(ii) Under 35 U.S.C. § 103(a), with respect to appealed claims 1-3, 5, 6, 14, 18, 19, and 24, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Klapper, Maruyama, and Chino to render the claimed invention unpatentable?

(iii) Under 35 U.S.C. § 103(a), with respect to appealed claim 12, would one of ordinary skill in the art at the time of the invention have found it obvious to modify the combination of Klapper, Maruyama, and Chino by adding the teachings of Sergeant and O’Farrill to render the claimed invention unpatentable?

(iv) Under 35 U.S.C. § 103(a), with respect to appealed claim 13, would one of ordinary skill in the art at the time of the invention have found it obvious to modify the combination of Klapper, Maruyama, and Chino by adding the teachings of Ohara to render the claimed invention unpatentable?

(v) Under 35 U.S.C. § 103(a), with respect to appealed claim 20, would one of ordinary skill in the art at the time of the invention have found it obvious to modify the combination of Klapper, Maruyama, and Chino by adding the teachings of Tovi to render the claimed invention unpatentable?

(vi) Under 35 U.S.C. § 103(a), with respect to appealed claim 23, would one of ordinary skill in the art at the time of the invention have found it obvious to modify the combination of Klapper, Maruyama, and Chino by adding the teachings of Boehle to render the claimed invention unpatentable?

(vii) Under 35 U.S.C. § 103(a), with respect to appealed claim 25, would one of ordinary skill in the art at the time of the invention have found it obvious to modify the combination of Klapper, Maruyama, and Chino by adding the teachings of Kujirada to render the claimed invention unpatentable?

#### FINDINGS OF FACT

The relevant facts are:

1. Appellants have invented a mobile pan and tilt camera and display-control system including an image capturing fully rotatable camera mounted to a vehicle. Further included is a display-control box having a display screen and control buttons for controlling the camera and its movement. The display-control box is attached to an adjustable mount in the vehicle and is within an operator's view and reach (Spec. 8:14-9:7).
2. Klapper discloses (Figures 1-3, col. 3, ll. 40-63, col. 4, ll. 5-21 and 45-67) a mobile pan and tilt camera attached to a mount assembly 538/556 mounted to a vehicle roof-rack 1014, an image capture box 1040, a display 1030, and a remote control 566 including a joystick 568.
3. Maruyama discloses (Figure 1, and paragraphs [0026]-[0029]) a camera and VTR system (1 and 2) including a VTR element 1 which has a

display 5 and control buttons 6 integrated in housing 4 which control functions of the camera 2.

4. Chino discloses (Figures 1-3, Abstract, and paragraphs [0015]-[0019]) a display monitor 1 mounted to a vehicle dashboard 5 through attachment structure 2 with the monitor being adjustable in height and angle through universal joint 4.

5. Sergeant discloses (Figures 1-2, col. 3, ll. 18-32) a sealed camera housing 10 with an “o-ring” seal 22.

6. O’Farrill discloses (col. 1, ll. 15-23) a camera with a threaded bezel opening to accept optical filters.

7. Ohara discloses (col. 1, ll. 7-14 and 43-45) an electric driving device for eliminating mechanical gear backlash in a camera.

8. Tovi discloses (Figure 2, col. 4, l. 63-col. 5, l. 29) a transparent globe 12 for enclosing camera 30.

9. Boehle discloses (Figures 2 and 7, col. 4, ll. 42-50 and col. 7, ll. 12-23) a video camera 6 mounted on a roof-rack of a powered vehicle 2 which moves along a railroad track.

10. Kujirada discloses (Figure 1, Abstract) the radio transmission of captured mobile images from traveling vehicles to an internet server including a video managing computer 2.

## PRINCIPLES OF LAW

### *Indefiniteness*

The general rule is that a claim must set out and circumscribe a particular area with a reasonable degree of precision and particularity when read in light of the disclosure as it would be by the artisan. *In re Moore*, 439

F.2d 1232, 1235 (CCPA 1971). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification. *Seattle Box Co. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984). *See also Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366 (Fed. Cir. 2004) ("The requirement to 'distinctly' claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principles. ... Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite.") (Citations omitted).

#### *Obviousness*

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). "[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Furthermore, "there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness' . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l Co. v. Teleflex Inc.*, 127



S. Ct. 1727, 1741(2007)(quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

## ANALYSIS

### *35 U.S.C. § 112, second paragraph, rejection*

The Examiner has rejected dependent claims 7 and 21 as being indefinite for improperly using the trademark/trade names “THULE” and “YAKIMA” as limitations in attempting to describe the structure of the roof rack system to which the camera mount assembly is attached. We find no error in the Examiner’s stated position (Ans. 4-5) that the use of trademark/trade names to describe the roof-rack structure does not define the structural boundaries of the claimed roof-rack system. As stated by Appellants (Reply Br. 49), the trademark/trade names identify the sources of the roof racks; however, the mere indication of the sources of the roof rack structure does not provide any indication of the metes and bounds of the roof-rack structure Appellants are attempting to claim. *See Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982).

Accordingly, since Appellants’ arguments do not convince us of any error in the Examiner’s position that the skilled artisan would be unable to determine the scope of the invention recited in claims 7 and 21, the Examiner’s rejection of claims 7 and 21 as being indefinite under the second paragraph of 35 U.S.C. § 112 is sustained.

*35 U.S.C. § 103(a) rejections*

*I. THE COMBINATION OF KLAPPER, MURAYAMA, AND CHINO*

*Claims 1, 2, and 14*

With respect to the 35 U.S.C. § 103(a) rejection of independent claim 1 based on the combination of Klapper, Maruyama, and Chino, Appellants' arguments in response assert a failure by the Examiner to establish a prima facie case of obviousness since all of the claimed limitations are not taught or suggested by the applied Klapper, Maruyama, and Chino references. Appellants initially attack (Reply Br. 21) the Examiner's reliance on Klapper with the contention that, in contrast to the claimed invention, Klapper's remote control box 566 has no display.

To whatever extent, however, Appellants are suggesting that the Examiner's proposed combination of references must fail since Klapper does not provide a disclosure of a control box integrated with a display, we find such contention to be without merit since the Examiner has relied upon Maruyama for this teaching. Similarly, while we do not necessarily agree with Appellants' argument (Reply Br. 22) that Maruyama's control box does not include camera movement controls, the Examiner has relied upon Klapper for a teaching of a control box (566) which has a joystick for controlling movement of camera 1.

It is apparent from the Examiner's line of reasoning in the Answer that the basis for the obviousness rejection is the *combination* of Klapper and Maruyama along with Chino. One cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Appellants' arguments also do not convince us of any error in the Examiner's application (Ans. 6-7) of the adjustable mount teachings of Chino to the combination of Klapper and Maruyama. According to Appellants (Reply Br. 26), Chino's adjustable mount, which is structurally designed for mounting TV and navigation display monitors would not be appropriate for mounting the controls for a vehicle roof-top camera.

We do not, however, interpret the Examiner's stated position (Ans. 6-7) as suggesting the bodily incorporation of the adjustable display monitor mount described in Chino into the roof-top camera control system of Klapper as modified by Maruyama. Rather, it is Chino's teaching of permitting display structure height and angle adjustment according to user preference that is relied on as a rationale for the proposed combination with the combined teachings of Klapper and Maruyama. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. ... Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." *See In re Keller*, 642 F.2d 414, 425 (CCPA 1981).

Appellants' further arguments (Reply Br. 25-26) include a general allegation that the Examiner has not established a proper basis for the proposed combination of the Klapper, Maruyama, and Chino references. In making this argument, Appellants again call attention to the supposed individual differences between each of the cited references and the claimed invention.

For all of the previously discussed reasons, however, we simply find no error in the Examiner's finding (Ans. 6) that the use of the integrated display and control box teachings of Maruyama as well as the adjustable display mount disclosure of Chino would be recognized by the ordinarily skilled artisan as an obvious enhancement to the vehicle roof-top camera control system of Klapper.

In our view the Examiner's proffered combination of Klapper, Maruyama, and Chino reasonably teaches and/or suggests Appellants' claimed invention in terms of familiar elements that would have been combined by an artisan having common sense using known methods to achieve a predictable result. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR*, 127 S. Ct. at 1739 (2007)).

Accordingly, for all of the above reasons, since Appellants have not persuaded us of any error in the Examiner's stated position, the Examiner's 35 U.S.C. § 103(a) rejection, based on the combination of Klapper, Maruyama, and Chino of independent claim 1, as well as dependent claims 2 and 14 not separately argued by Appellants (Reply Br. 27 and 32), is sustained.

### *Dependent claim 3*

We sustain the Examiner's rejection of this claim as well. We agree with the Examiner (Ans. 7) that the relative claim terminology "quick disconnect" imparts no distinguishing structure to the claimed mount

assembly. As pointed out by the Examiner, there is no characteristic of a bolted attachment mechanism such as in the mounting assembly (500, 1014) of Klapper that would prevent it from being considered to have a “quick disconnect” arrangement.

It is noteworthy that Appellants’ contention (Reply Br. 28) that Appellants’ disconnect process can be performed in seconds without tools while Klapper’s bolting approach would take minutes to perform is not supported by Appellants’ disclosure or any evidence of record. Further, although not specifically mentioned by the Examiner, the illustration in Figure 2 of Klapper indicates that the camera 1 has recesses in the side walls which are designed to snap into the camera disconnect mechanism in the mounting assembly 500 of Klapper which takes the form of mating trunnions 512 and 514.

*Dependent claim 5*

We also sustain the Examiner’s rejection of dependent claim 5 which is directed to the inclusion of a water seal feature in the camera and tilting mechanism structure. Although Appellants contend (Reply Br. 30) that Klapper has no disclosure of a water seal where the camera attaches to the pointing mechanism, we find Appellants’ arguments to be not commensurate with the scope of claim 5 which requires no such structural arrangement. In fact, the language of claim 5 merely requires a water seal attached to the tilting mechanism. Accordingly, we find no error in the Examiner’s finding (Ans. 12) that since Klapper’s camera (1104, Figure 16) has a water seal in the form of a water resistant case (col. 13, ll. 65-67), and the camera is attached to tilting mechanism 1105, Klapper’s combined camera/tilting

mechanism structure (1104, 1105) therefore includes a water seal attached to the tilting mechanism as claimed.

*Dependent claim 6*

The Examiner's rejection of this claim is also sustained since we further find no error in the Examiner's finding (Ans. 13) that the vehicle roof mounted hardware 1012 in Klapper to which the camera mounting assembly 500 is attached corresponds to the claimed vehicle "roof-rack." We simply find no basis for Appellants' argument (Reply Br. 30-32) that Klapper's single member structure 1012 can not be considered a "roof-rack" since, according to Appellants, a "roof-rack" is conventionally considered to include two spaced-apart members. Such a contention, however, belies the description in Appellants' own disclosure (Spec. 13:10 and 17:6) which describes and illustrates (Figures 2 and 6) a "roof-rack" as a single mounting bar 52 to which mounting assembly 22 is attached.

*Dependent claims 18 and 19*

We also sustain the Examiner's rejection of dependent claims 18 and 19 which are directed to the operation with a single hand of, respectively, a set of buttons of the display-control box and a viewing angle adjustment lever of the display control box. With respect to claim 18, we agree with the Examiner's finding (Ans. 13) that Maruyama provides a disclosure (Figures 57, 58, and 65) of operating control buttons of a display-control box with a single hand as claimed. We also note that even assuming, *arguendo*, that Appellants are correct in the assertion (Reply Br. 34) that, in Maruyama's Figure 65 illustration, the buttons on the left side of the control box cannot

be reached with a single hand, the language of claim 18 does not require that *all* control buttons on the display-control box be positioned to be operated with a single hand.

With respect to claim 19, we also find no error in the Examiner's finding (Ans. 8) that Chino discloses the adjustment of the viewing angle of a display and control system with a single hand that operates adjustment lever 6. Further, again assuming, *arguendo*, that Appellants' arguments (Reply Br. 36) that Chino requires a second hand to hold the display monitor 1 while angle adjustment takes place are correct, such is not precluded by the language of claim 19.

*Dependent claim 24*

The Examiner's rejection of dependent claim 24 directed to the inclusion of a mount assembly adapter plate for ship-board attachment is also sustained. We find no persuasive arguments from Appellants that convince us of any error in the Examiner's finding (Ans. 8 and 13) that, in the Figure 15 embodiment of Klapper in which a night vision camera 1101 is mounted below the bridge of a marine vessel 1102, the camera mounting assembly would necessarily include adapter mounting structure to accommodate the below-the-bridge mounting.

*II. THE COMBINATION OF KLAPPER, MURAYAMA, CHINO, SERGEANT, AND O'FARRILL.*

*Claim 12*

We also sustain this rejection. Appellants' arguments (Reply Br. 40) contend that, in contrast to the claimed invention, Sergeant's "o-ring" seal is

not directed to sealing optical filters. Further, Appellants argue (Reply Br. 39) that O’Farrill’s threaded bezel opening is used for attaching optical filters to the lens of a camera, not a camera enclosure as claimed.

We find neither of these arguments persuasive in convincing us of any error in the Examiner’s stated position (Ans. 9). As with our earlier discussion with respect to independent claim 1, we do not interpret the Examiner’s position as suggesting the bodily incorporation of the “o-ring” and threaded bezel opening teachings, respectively, of Sergeant and O’Farrill into the system of Klapper as modified by Murayama and Chino. Rather, it is Sergeant’s teaching (col. 3, ll. 18-32, Figures 1 and 2) of the use of “o-ring” seals for providing environmental protection for cameras and O’Farrill’s disclosure (col. 1, ll. 15-23) of the use of a threaded bezel opening for easily attaching and exchanging camera optical filters that are relied upon as a rationale for the proposed combination.

### *III. THE COMBINATION OF KLAPPER, MURAYAMA, CHINO, AND OHARA.*

#### *Claim 13*

The Examiner’s rejection of dependent claim 13, directed to an electronic compensation feature for overcoming gear backlash in the camera, is also sustained. We fail to find any error in the Examiner’s stated position (Ans. 10) since we fail to see why Ohara’s use of an electric driving device for providing gear backlash compensation(col. 1, ll. 7-14 and 43-45) would not be considered as providing electronic gear backlash compensation as claimed. To whatever extent Appellants are relying (Reply Br. 41) on the



disclosed details of the use of electronic field of view shifting, no such details are recited in dependent claim 13.

*IV. THE COMBINATION OF KLAPPER, MURAYAMA, CHINO, AND TOVI.*

*Claim 20*

This rejection is sustained as well. We agree with the Examiner's finding (Ans. 10 and 14) that Tovi provides a disclosure (col. 4, l. 63 through col. 5, l. 29, Figure 2) of a transparent globe 12 which encloses camera 30. We also agree with the Examiner that, although the transparent portion of Tovi's globe 12 does not extend over the entirety of the globe surface as argued by Appellants (Reply Br. 42-43), there is no language in claim 20 which requires the entirety of the claimed sphere to be optically clear or tinted.

*V. THE COMBINATION OF KLAPPER, MURAYAMA, CHINO, AND BOEHLE.*

*Claim 23*

We also sustain the Examiner's rejection of dependent claim 23 which includes the feature of a camera mount assembly being "adaptable to a railroad locomotive attachment." Appellants' arguments to the contrary notwithstanding, we fail to see why the roof-rack camera mount assembly of Boehle (Figures 2 and 7), which is attached to a powered vehicle which travels along a railroad track (col. 4, ll. 42-50), would not be considered by an ordinarily skilled artisan as a mount assembly which

is “adapted to a railroad locomotive attachment” as broadly claimed by Appellants.

VI. *THE COMBINATION OF KLAPPER, MURAYAMA, CHINO, AND KUJIRADA.*

*Claim 25*

The Examiner’s obviousness rejection of independent claim 25 is also sustained. Appellants reiterate (Reply Br. 46) the arguments made against the Examiner’s proposed combination of Klapper, Maruyama, and Chino, which arguments we found to be unpersuasive as discussed *supra*.

We further find to be without merit Appellants’ attempt (Reply Br. 46) to distinguish over Maruyama by arguing that the element identified by the Examiner in Maruyama (VTR 1) as corresponding to the claimed image capture box is not mounted in a vehicle. Aside from the fact that Maruyama discloses several embodiments (Figures 37 and 59) in which a camera 2 is mounted to a vehicle, which strongly suggests that the VTR portion of the camera-VTR combined structure 1-2 is located inside the vehicle, there is simply no language in claim 25 which requires any particular location for the image capture box.

We also find Appellants’ arguments (Reply Br. 47), with respect to Kujirada’s teaching of transmitting captured images by radio communication to an internet server, are not commensurate with the scope of claim 25. Even assuming, *arguendo*, that Appellants are correct in their contention that Kujirada is transmitting only *current* image data, there is no language in claim 25 which precludes the real time transmission of captured image data.

### CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that Appellants have not shown that the Examiner erred in rejecting claims 1-3, 5-7, 12-14, 18-21, and 23-25 for obviousness under 35 U.S.C. § 103.

### DECISION

The Examiner's 35 U.S.C. § 103 rejection of claims 1-3, 5-7, 12-14, 18-21, and 23-25, all of the appealed claims, is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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Appeal 2007-2749  
Application 09/059,077

ROBERT E MALM  
16624 PEQUENO PLACE  
PACIFIC PALISADES, CA 90272